

## ONLINE PAYER AUTHENTICATION SERVICE

### ABSTRACT OF THE DISCLOSURE

5 A payment authentication service authenticates the identity of a payer during  
online transactions. The authentication service of the present invention allows a card  
issuer to verify a cardholder's identity using a variety of authentication methods, such as  
the use of passwords. Also, the only system participant requiring a certificate is the  
issuing financial institution. One embodiment of the invention for authenticating the  
10 identity of a cardholder during an online transaction involves querying an access control  
server to determine if a cardholder is enrolled in the payment authentication service,  
requests a password from the cardholder, verifies the password, and notifies a merchant  
whether the cardholder's authenticity has been verified. In another aspect of the  
invention, a chip card and the authentication service independently generate cryptograms  
15 that must match in order for the service to verify that the correct chip card is being used  
by the cardholder.